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Creating a Templ

This article was contribued by Normand Roy

Having the possibility of creating a template object, like a "CMap", with a CO
"anti-VARIANT" programmers will cheer this opportunity. Here follow step-b

I will use an object with one simple method as an exemple. This object is fully

The interface will look like this:

```
interface IMinumumTYPE : IUnknown
{
        HRESULT Min( TYPE a, TYPE b, TYPE *pMim );
}
```

The steps to create this object are: 1) Implementing the object template. 2) Defi

Implementing the object template.

```
template<class TYPE, class T, const CLSID *pclsid, WCHAR wszMod
class CMinimumImpl : public CComObjectRootEx<CComMultiThreadMod
                     public CComCoClass< CMinimumImpl<TYPE,T,pc
                     public T
{

public:
        HRESULT __stdcall Min( TYPE a, TYPE b, TYPE *pMin )
        {
                *pMin = (a < b ? a : b );
                return S_OK;
        }
BEGIN_COM_MAP(CMinimumImpl)
        COM_INTERFACE_ENTRY_IID( __uuidof(T), T )
END_COM_MAP()

        static HRESULT WINAPI UpdateRegistry(BOOL bRegister)
        {
                OLECHAR wszCLSID[45];
                StringFromGUID2( *pclsid, wszCLSID, 45 );

                _ATL_REGMAP_ENTRY regMap[] = { { L"ObjName", ws
```


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```
                return _Module.UpdateRegistryFromResourceD( IDR
        }
};
```

There is only one tricky part: the registration of the object in the registry. To ac
instance of %ObjName% and %ObjCLSID% will be replaced with the content
case. The interface supported is given as a template parameter. We will see nov

Using prepocessor macros to define the interface in IDL.

Four information is needed in the template object to be able to create the interfi
library associated with the interface.

We define the interface in IDL as:

```
#define CPP_QUOTE( name ) cpp_quote( #name )

#define MINIMUM_INTERFACE( RIID, TYPE, NAME )
                        [
                                uuid( RIID),
                                pointer_default(unique)
                        ]
                        interface I##NAME : IUnknown
                        {
                                HRESULT Min( [in]TYPE a, [in]TY
                        };
                                cpp_quote( "#ifdef __cplusplus"
                                cpp_quote( "#ifdef __MINIMUM_H_
                                CPP_QUOTE( extern OLECHAR g_wsz
                                CPP_QUOTE( EXTERN_C const CLSID
                                CPP_QUOTE( typedef CMinimumImpl<
                                cpp_quote( "," )
                                CPP_QUOTE( I##NAME )
                                cpp_quote( "," )
                                CPP_QUOTE( &CLSID_##NAME )
                                cpp_quote( "," )
                                CPP_QUOTE( g_wsz##NAME )
                                CPP_QUOTE( > C##NAME;   )
                                cpp_quote( "#endif" )
                                cpp_quote( "#endif" )
```

The first part is the declaration of the interface, the second part write a typedef
must use multiple lines. You can see we are passing the TYPE, the Interface, th
as I appended to the name.

We can declare the interface for int and double as follow:

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more...

```
MINIMUM_INTERFACE( A91EBC05-87C0-11d2-9947-C26F54DDB3BE, int, M
MINIMUM_INTERFACE( A91EBC09-87C0-11d2-9947-C26F54DDB3BE, double
```

The interfaces generated will be: IMinimumDouble and IMinimumInt.

But it's not over, we must declare the name which will be written in the registry

Here are the macros:

```
#define BEGIN_NAME_MAP() cpp_quote( "#define NAME_MAP() \\" )
#define END_NAME_MAP()   cpp_quote(" ")
#define NAME_ENTRY(NAME) CPP_QUOTE( OLECHAR g_wsz##NAME[] = L#
```

The macro BEGIN_NAME_MAP define a macro in the generated header file.

```
BEGIN_NAME_MAP()
        NAME_ENTRY( MinimumInt )
        NAME_ENTRY( MinimumDouble )
END_NAME_MAP()
```

Now we will generate another macro in the genarated header file to add all obj

```
#define BEGIN_OBJECT_MAP()      cpp_quote( "#define OBJECT_MAP(
#define END_OBJECT_MAP()        cpp_quote(" " )
#define OBJECT_ENTRY(NAME)      CPP_QUOTE( OBJECT_ENTRY( CLSID_
```

We use it in the IDL file like that:

```
BEGIN_OBJECT_MAP()
        OBJECT_ENTRY( MinimumInt )
        OBJECT_ENTRY( MinimumDouble )
END_OBJECT_MAP()
```

The last step is the library declaration:

```
#define BEGIN_LIBRARY()
                        [
                                uuid(0968E542-87B7-11D2-9947-C2
                                version(1.0),
                                helpstring("codeguru 1.0 Type L
                        }
                        library CODEGURULib
                        {
                                importlib("stdole32.tlb");
                                importlib("stdole2.tlb");


#define END_LIBRARY() };

#define LIBRARY_ENTRY( CLSID, NAME )
                        [
```


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```
                        uuid(CLSID)
                }
                coclass NAME
                {
                        [default] interface I##NAME;
                };
```

It look like this for our two objects:

```
BEGIN_LIBRARY()
        LIBRARY_ENTRY( A91EBC0E-87C0-11d2-9947-C26F54DDB3BE, Mi
        LIBRARY_ENTRY( A91EBC11-87C0-11d2-9947-C26F54DDB3BE, Mi
END_LIBRARY()
```

Adding entry in the main object map.

In your main project file, you must add two lines:

```
NAME_MAP()  //a macro we have generated

BEGIN_OBJECT_MAP(ObjectMap)
        OBJECT_MAP()  another macro we have generated
END_OBJECT_MAP()
```

Conclusion.

The concept is kind is simple viewing by this angle. But be careful, as more ex
much greater.

Download source - 12KB

Date Posted: December 1, 1998

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Subject: ATL Digest - 23 Feb 1998 (#1998-84)
From: LISTSERV@LISTSERV.MSN.COM
Date: Tue, 24 Feb 1998 06:04:10 +0100

Subject: ATL Digest - 23 Feb 1998 (#1998-84)
From: LISTSERV@LISTSERV.MSN.COM
To: ATL@LISTSERV.MSN.COM
Date: Tue, 24 Feb 1998 06:04:10 +0100

There are 4 messages totalling 489 lines in this issue.

Topics of the day:

1. "Library not registered" - dispinterface and C++ sink (2)
2. Getting images to VB
3. template

Date: Mon, 23 Feb 1998 18:57:14 -0800
From: Chuck Bell <[PRIVACY PROTECTION]>
Subject: Re: "Library not registered" - dispinterface and C++ sink

Is the error DISP_E_MEMBERNOTFOUND? If it is, your coclass is de
the dispinterface not your dual interface copy. In the ITypeInfo:
implementation they check to make sure the interface is a dual int
not a dispinterface. If its a dispinterface they simply return
DISP_E_MEMBERNOTFOUND.

Chuck

> -----Original Message-----
> From: Joe Parness [SMTP:[PRIVACY PROTECTION]]
> Sent: Monday, February 23, 1998 6:45 PM
> To: ATL@LISTSERV.MSN.COM
> Subject: Re: "Library not registered" - dispinterface and C
>
> Thanks for the info, now Invoke returns "element not found"... s
>
> > -----Original Message-----
> > From: ATL - Active Template Library [mailto:ATL@LISTSERV.MSN.C
> > Behalf Of Chuck Bell
> > Sent: Monday, February 23, 1998 6:23 PM
> > To: ATL@LISTSERV.MSN.COM
> > Subject: Re: [ATL] "Library not registered" - dispinterface ar
> >
> >
> > Hi Joe,
> >

> > IDispatchImpl requires the type library GUID because it's impl
> of
> > IDispatch::Invoke simply defers to ITypeInfo::Invoke. The thi
> template
> > parameter for IDispatchImpl is the GUID of your type library
> > ProxyEvents coclass is defined. Otherwise your sink looks fir
> >
> > Chuck
> >
> > > -----Original Message-----
> > > From: Joe Parness [SMTP:[PRIVACY PROTECTION]]
> > > Sent: Monday, February 23, 1998 12:33 PM
> > > To: ATL@LISTSERV.MSN.COM
> > > Subject: Re: "Library not registered" - dispinterface
> sink
> > > >
> > > > Hi Chuck,
> > > >
> > > > Here is what I have implemented for my client. AtlAdvise ret
> but
> > > > the Invoke fails with "Library not registered". It seems li
> code
> > > > should work just fine for dispinterface connection points.
> doing
> > > > wrong here... Also note that VB clients work OK with my ser
> > > >
> > > > class CProxyEvents :
> > > public
> IDispatchImpl<ItestEvents,&IID_ItestEvents,&CLSID_test>,
> > > public CComObjectRoot
> > > {
> > > public:
> > > CProxyEvents(){};
> > >
> > > BEGIN_COM_MAP(CProxyEvents)
> > > COM_INTERFACE_ENTRY(ItestEvents)
> > > COM_INTERFACE_ENTRY(IDispatch)
> > > COM_INTERFACE_ENTRY_IID(DIID_DItestEvents,
> > > END_COM_MAP()
> > >
> > > public:
> > > STDMETHODIMP Notify(VARIANT *v)
> > > {
> > > return 0;
> > > }
> > > };
> > > CComObject <CProxyEvents>*m_pProxyEvent=NULL;
> > >
> > >
> > >
> > > if (NULL == m_pItest)
> > > {
> > > if (S_OK == (hr = CoCreateInstance(CLSID_te
> > > CLSCTX_LOCAL_SERVER,
> > > IID_Itest, (void**)&m_pItest)))
> > > {
> > > m_dwAdvise = 0;
> > > CComObject <CProxyEvents>*m_pProxyE
> > > HRESULT hresult =

> > > CComObject<CProxyEvents>::CreateInstance((CComObject<CProxyE
> > > **)&m_pProxyEvent);
> > > ASSERT(m_pItest);
> > > HRESULT hRes = AtlAdvise(m_pItest,
> > > m_pProxyEvent->GetUnknown(),
> > > DIID_DItestEvents, &m_dwAdvise);
> > > }
> > > }
> > >
> > > ----------
> search
> >
> > ----------
> >
>
> ----------

Date: Mon, 23 Feb 1998 19:04:24 -0800
From: Sathish Babu <[PRIVACY PROTECTION]>
Subject: Re: "Library not registered" - dispinterface and C++ sink

No luck sir :-((

Did that also !!

Thanks
sathish

-----Original Message-----
From: Chuck Bell [SMTP:[PRIVACY PROTECTION]]
Sent: Monday, February 23, 1998 6:52 PM
To: ATL@LISTSERV.MSN.COM
Subject: Re: "Library not registered" - dispinterf
C++ sink

GetUnknown does not AddRef your sink object. Thy using
pMySink->Queryinterface instead.

Chuck

> -----Original Message-----
> From: Sathish Babu [SMTP:[PRIVACY PROTECTION]]
> Sent: Monday, February 23, 1998 6:21 PM
> To: ATL@LISTSERV.MSN.COM
> Subject: Re: "Library not registered" - dispinterf
C++ sink
>
> I have same problem after implementing as told, My event
still not
> getting fired.
>
> But my problem is the COM Server is written in VB and C
is in ATL.
>
> Here is my VB Code
> Public Event OnDataAvail(ByVal DataLen As Long)
> Public Event OnClose(ByVal ErrNo As Long)

>
> Public Function OpenConnection() As Integer
> MsgBox "In Open Connection of VB COM Server", vbOKOnly,
COM Server"
> RaiseEvent OnDataAvail(100)
> End Function
>
> Public Function CloseConnection() As Integer
> MsgBox "In Close Connection of VB COM Server", vbOKOnly,
COM Server"
> RaiseEvent OnClose(10)
> End Function
>
> And the Snippet of my ATL Client is :
>
> class ATL_NO_VTABLE CMySink :
> public CComObjectRootEx<CComSingleThreadModel>,
> public IDispatchImpl<IMySink, &IID_IMySink,
&LIBID_ATLCLIENTLib>
> {
> public:
> CMySink()
> {
> }
>
> DECLARE_REGISTRY_RESOURCEID(IDR_MYSINK)
>
> BEGIN_COM_MAP(CMySink)
> COM_INTERFACE_ENTRY(IMySink)
> COM_INTERFACE_ENTRY(IDispatch)
> COM_INTERFACE_ENTRY_IID(DIID___EventGen, IDispat
> END_COM_MAP()
>
> // IMySink
> public:
> STDMETHOD(OnClose)(/*[in]*/ long ErrNo);
> STDMETHOD(OnDataAvail)(/*[in]*/ long DataLen);
>
> STDMETHOD(QueryInterface)(REFIID, void**);
> };
>
> IDL Generated by VB
>
> dispinterface __EventGen {
> properties:
> methods:
> [id(0x00000001)]
> void OnDataAvail([in] long DataLen);
> [id(0x00000002)]
> void OnClose([in] long ErrNo);
> };
>
> What i changed is :
> [
> object,
> uuid(2800674E-AC9C-11D1-8DEA-006008C603
> dual,
> helpstring("IMySink Interface"),
> pointer_default(unique)

```
>         ]
>         interface IMySink : IDispatch
>         {
>                 [id(1), helpstring("method OnDataIn")] H
> OnDataAvail([in] long DataLen);
>                 [id(2), helpstring("method OnClose")] HR
> OnClose([in] long ErrNo);
>         };
>
> The problem my events never got called. Any help
>
> the calling code is
>
>         CoCreateInstance(CLSID_EventGen, NULL, CLSCTX_AI
> IID__EventGen, (void**)&pServer);
>         _ASSERTE(pServer != NULL);
>
>         CComObject<CMySink>* pMySink = NULL;
>
>         CComObject<CMySink>::CreateInstance(&pMySink);
>
>         DWORD dwAdvise = 0;
>
>         hRes = AtlAdvise(pServer, pMySink->GetUnknown(),
> DIID___EventGen, &dwAdvise);
>
>         short lRetVal;
>         pServer->OpenConnection(&lRetVal);
>         pServer->CloseConnection(&lRetVal);
>
>         AtlUnadvise(pServer, DIID___EventGen, dwAdvise);
>
>         pServer->Release();
>
> I never got the events fired.
>
> Any help is appriciated.
>
> Thanks
> sathish
>
```

```
Date:    Mon, 23 Feb 1998 23:12:55 -0500
From:    Steve Lathrop <[PRIVACY PROTECTION]>
Subject: Re: Getting images to VB

Scott,

I'd recommend using a SAFEARRAY of bytes inside a VARIANT.  I'm us
this technique to xfer images over DCOM between an ATL client and
server (with dual interface).  Once the array gets to your client,
can just spit it out to a file using the standard Win32 File I/O f

See Don Box's OLE Q&A in the June 1996 MSJ for details on packagir
things into SAFEARRAYS, etc.

If you want to "stream" the data over to the client, I'd consider
```



```
exposing an IEnumXXX interface on your server that gives you, say
chunks of the image at a time.  That way, you can allow your clier
Cancel the xfer at any time, instead of blocking during a potentia
long method call.

Steve

Steve Lathrop, Consultant & Director
Winning Solutions, Inc.
http://www.winningsolutions.com

> -----Original Message-----
> From: Scott Burgett [SMTP:[PRIVACY PROTECTION]]
> Sent: Monday, February 23, 1998 10:06 AM
> To:   ATL@LISTSERV.MSN.COM
> Subject:      Getting images to VB
>
> I'm trying to get a series of images to a VB client from a DCOM
> that I'm
> creating using ATL.  What's the best way to package up the data?
> assuming
> that I have to implement IDataObject on the server side so that
> get to
> it.  What I am not clear about is that if I use IDataObject to g
> multiple
> images, do I need to use IStorage with IStreams?
>
> These images can be rather large, so from what I have seen on th
> listserv, I
> may want to write a custom IStream to package up the data.   If
> that, then
> I know I will have to implement a method on the client side to h
> to
> unpackage that data as well.
>
> Any info and/or advice would be greatly appreciated.
>
> Thanks,
> Scott
>
```

```
Date:    Mon, 23 Feb 1998 22:34:36 -0500
From:    Aleks Kleyn <[PRIVACY PROTECTION]>
Subject: Re: template

Thank you, Charles for your help. The solution was little another,
your advice helped to find it. I added default constructor, but pr
went on. The names that link showed were very important. I tried s
different combination. Using trial and error I discovered that not
definition but functions themselves have to be present in the modu
where I use HdxChain<Int>. From my email is not seen directly that
used 3 different files in project. How I understand from this temp
behaves like macro and itself does not create any object code. Now
go ahead.
 Aleks Kleyn.
-----Original Message-----
    From: Charles Vaz <[PRIVACY PROTECTION]>
```



```
    To: ATL@LISTSERV.MSN.COM <ATL@LISTSERV.MSN.COM>
    Date: Sunday, February 22, 1998 12:44 AM
    Subject: Re: template
   =20
   =20
    Hi,
      First of all ' class Int ' needs a default constructor becau
the
    declaration ' HdxObject<T>::HdxObject(T TNew) '
      Hence, a simple solution is to give default values for the f
parameters to
    the ' Int ' constructor .
      Hence, the following changes in chain.h
   =20
      class Int {
           ............
        Int(int da =3D0 ,int db=3D0);
         .........
   =20
        };
   =20
        This should compile and link fine under MSDEV 5.0
   =20
    Regards,
    =
---
    ---
    Charles Vaz.
    Software Design Engineer,
    Tektronix Engineering Development (India) Pvt. Ltd.
    Tek Towers, Hayes Road, Bangalore-560 025.
    Phone:(080)2275577 Extn:3222
    =
---
    ---
   =20
    -----Original Message-----
    From: Aleks Kleyn <[PRIVACY PROTECTION]>
    To: ATL@LISTSERV.MSN.COM <ATL@LISTSERV.MSN.COM>
    Date: Sunday, February 22, 1998 4:23 PM
    Subject: template
   =20
   =20
    Before using ATL I tried to use just template in plain C++. Bu
gives
    me errors
   =20
    TempMain.obj : error LNK2001: unresolved external symbol "publ
class
    HdxObject<class Int>  __thiscall HdxChain<class Int>::AddNew(c
Int)"
    (?AddNew@?$HdxChain@VInt@@@@QAE?AV?$HdxObject@VInt@@@@VInt@@@@
    TempMain.obj : error LNK2001: unresolved external symbol "publ
__thiscall
    HdxChain<class Int>::HdxChain<class Int>(void)"
    (??0?$HdxChain@VInt@@@@QAE@XZ)
   =20
   =20
    Below my simple code
```



```
   =20
   =20
      #include "Chain.h"
   =20
      Int::Int
      (
      int da,
      int db
      )
      {
      a=3Dda;
      b=3Ddb;
      }
   =20
      template<class T>
      HdxObject<T>::HdxObject(T TNew)
      {
      TObject=3DTNew;
      }
   =20
      template<class T>
      HdxChain<T>::HdxChain()
      {
      First=3DNULL;
      }
   =20
      template<class T>
      HdxObject<T> HdxChain<T>::AddNew(T TNew)
      {
      HdxObject<T> * NewObject;
   =20
      NewObject=3Dnew HdxObject<T>(TNew);
      NewObject->Next=3DFirst;
      First=3DNewObject;
      return *NewObject;
      }
   =20
      template<class T>
      class HdxObject
      {
      public:
      HdxObject(T TNew);
      HdxObject * Next;
      T TObject;
      };
   =20
      template<class T>
      class HdxChain
      {
      public:
      HdxChain();
      HdxObject<T> AddNew(T TNew);
      private:
      HdxObject<T> * First;
      };
   =20
      class Int
      {
      public:
```

```
        Int(int da,int db);
        int a;
        int b;
        };
   =20
        #include "Chain.h"
   =20
        void main()
        {
        HdxChain<Int> as1;
        Int a1(5,6);
        as1.AddNew(a1);
        Int a2(2,5);
        as1.AddNew(a2);
        }
   =20
        What link does not like and how to prove code.
        Thank you, Aleks Kleyn.
   =20
    ------------------------------------------------------------------
    Users Guide =
http://www.microsoft.com/sitebuilder/resource/mailfaq.asp
search
   =20


End of ATL Digest - 23 Feb 1998 (#1998-84)
******************************************
```

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COM/ATL Issues

Last Modification: December 12, 2001

Q: HOWTO: Reuse interface implementation in source in ATL projects - part II: base and derived interfaces

A: A common phenomenon during the evolution of a component is the developemnt of newer extended version of one or more interfaces usually by deriving grom the old interfaces:

```
interface ISomething : IUnknown
interface ISomething2 : ISomething
interface ISomething3 : ISomething2
```

Another possible case is designing the component to have it implement a series of cascaded interfaces - interfaces that derive in a chain:

```
interface IBase : IUnknown
interface IDerived : IBase
interface IMoreDerived : IDerived
interface IAnotherDerived : IBase
interface IAnotherMoreDerived : IAnotherDerived
```

In both cases it is desirable to share the implementation of the base interfaces throughout the project. This is accomplished through the use of C++ templates. Let's consider the following simple derivation chain:

```
interface IBase : IUnknown
interface IDerived : IBase
```

The C++ templates we'll use look as following:

```
template <typename Itf>
class IBaseImpl : public Itf
{
    // Implement the IBase methods here
};

template <typename Itf>
class IDerivedImpl : public Itf
{
    // Implement the IDerived methods here
};
```

And a class that's using these implementations would look like the following:

```
class ATL_NO_VTABLE CAtlObj :
    public CComObjectRootEx<CComMultiThreadModel>,
    public CComCoClass<CAtlObj, &CLSID_AtlObj>,
    public IDerivedImpl< IBaseImpl<IDerived> >
```



```
{
public:
    CAtlObj() {}

DECLARE_REGISTRY_RESOURCEID(IDR_ATLOBJ)

DECLARE_NOT_AGGREGATABLE(CAtlObj)

BEGIN_COM_MAP(CAtlObj)
    COM_INTERFACE_ENTRY(IBase)
    COM_INTERFACE_ENTRY(IDerived)
END_COM_MAP()
};
```

Note IDerivedImpl<> does not derive from IBaseImpl<>, but instead it is passed in as a template parameter. This allows you to have multiple implementations of IBase and use them wherever appropriate. However, if this is not essential for your design, but you do have a deep interface inheritance hierarchy, it might be beneficial to simplify the ATL object class' derivation by explicitly deriving from the implementation of the base interface in the implementation of the derived interface:

```
template <typename Itf>
class IBaseImpl : public Itf
{
    // Implement the IBase methods here
};

template <typename Itf>
class IDerivedImpl : public IBaseImpl<Itf>
{
    // Implement the IDerived methods here
};

class ATL_NO_VTABLE CAtlObj :
    public CComObjectRootEx<CComMultiThreadModel>,
    public CComCoClass<CAtlObj, &CLSID_AtlObj>,
    public IDerivedImpl<IDerived>
{
public:
    CAtlObj() {}

DECLARE_REGISTRY_RESOURCEID(IDR_ATLOBJ)

DECLARE_NOT_AGGREGATABLE(CAtlObj)

BEGIN_COM_MAP(CAtlObj)
    COM_INTERFACE_ENTRY(IBase)
    COM_INTERFACE_ENTRY(IDerived)
END_COM_MAP()
};
```

Please read the first part of this article for techniques on how to deal with code bloat and dual interfaces. Note you can mix the techniques from this and the first part:

```
template <typename T, typename Itf>
class IDerivedImpl : public Itf
{
    // Implement the IDerived methods here
    // In a method that requires services from the derived class
    {
        T* pT = static_cast<T*>(this);
        pT->SomeMethod();
        ...
    }
};
```



```
class ATL_NO_VTABLE CAtlObj :
    public CComObjectRootEx<CComMultiThreadModel>,
    public CComCoClass<CAtlObj, &CLSID_AtlObj>,
    public IDerivedImpl< CAtlObj, IBaseImpl<IDerived> >
{
    ...
};
```

References and samples:

- COM FAQ 7: HOWTO: Reuse interface implementation in source in ATL projects - part I: standalone interfaces

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Your Search: interface and "template parameter" and 199 Search

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... Considering the above, the task of bridging one **interface** to another is anything but trivial. ... Its (non-type) **template parameter** is a VARENUM enumerated value. ...
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2. priority_queue
Top of document ©Copyright **1999** Rogue Wave Software ... **Interface**. ... default template parameters, you must always provide a Container **template parameter**, a Compare ...
www.roguewave.com/support/docs/hppdocs/stdref/priority-queue.html cached | more results from this site

3. unique_view Type
... The properties of any unique_view instance depend on the properties of the container **template parameter**. The **interface** of unique_view adapts itself [1] to the ...
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... name passed to it as a **template parameter** and modifying ... it with the object's own IUnknown **interface** pointer. ... instance naming, see the February **1999** Wicked Code ...
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... The **template parameter** of CComCreator<> specifies two things: whether ... your own class factory **interface** is used ... Copyright © **1999** - Visual C++ Developers Journal.
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... This provided licensing through the IClassFactory2 **interface**. ... it returns error specified as its **template parameter**. ... com, November 15, **1999**; What COM is All ...
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... from a very small pure virtual class (an '**interface**', in Java terms ... Date: Sun, 28 Nov **1999** 13:31 ... since then the template can have a **template parameter** that will ...

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... TREE_TYPE (parm))) { sorry ("aggregate **template parameter** types"); TREE_TYPE ... if (interface_unknown || !flag_external_templates) p->**interface** = 1; /* unknown ...
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... F INAL E XAMINATION - S PRING **1999** Time Limit ... Sketch briefly the **interface** (s), ie, the .h file(s ... a member function for a class, the **template parameter**(s) must ...
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... have the possibility of defining a **template parameter** as being of ... to PAF file syntax (see "Data **Interface** Control Document ... For instance: **1999**-10-21T20:17:45.000. ...
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... with a pointer to an instance of the first // **template parameter** template <class ... m_work(r); e.free(); } } Listing Six // condition cariable **interface** class Cv ...
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... but they differ in capabilities and native **interface**. ... 8, August **1999**, "Win32 Multithreading Made Easy" by John ... to 'I' and 'T' is a **template parameter**. ...
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1. (C++) more patches
... The **template-parameter** is bound directly to the template ... 17 12:51:10 1.35 — semantics.c **1998**/11/19 ... TYPE_BEING_DEFINED (t) = 1; /* Reset the **interface** data, at ...
gcc.gnu.org/ml/gcc-patches/1998-11/msg00286.html cached | more results from this site

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... one year ago, in the March **1998** issue, [1 ... it does because of the **Interface** Principle. ... error C2784: 'class std::reverse_iterator<'**template-parameter-1**', 'template ...
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... **INTERFACE**. ... aaaaaaa Rogue Wave Software Last change: 02 Apr **1998** 5 - stack(3C++ ... If your compiler does not support **template parameter** defaults, you are required to ...
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... string you entered will replace the **template parameter** {0} and ... between an awkward or an easy-to-use **interface**. ... a gzipped tar file /javaworld/jw-02-**1998**/howto/jw ...
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... **Interface**. ... The type traits_type is a synonym for the **template parameter** traits . ... file Top of document Contents Index Next file ©Copyright **1998**, Rogue Wave ...
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... Date: Tue, 27 Oct **1998** 09:24:21 -0600. ... with a little rework of the zip() **interface**, it is ... call and explicitly indicate the type via a **template parameter**, as in ...
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... member function parse(...) compatible with the conceptual **Interface**: ... always, dependent on the **template parameter** ScannerT ... Copyright © **1998**-2003 Joel de Guzman ...
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... **interface** template types the raw storage based on the **template parameter**. ... Alternate **Interface**. ... document Contents Index Next file Copyright (c) **1998**, Rogue Wave ...
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... TREE_TYPE (parm))) { sorry ("aggregate **template parameter** types"); TREE_TYPE ... if (interface_unknown || !flag_external_templates) p->**interface** = 1; /* unknown ...
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... Copyright (C) 1997, **1998** Birkbeck College ... together with BTL_InD provide a // uniform **interface** for the ... to be used must be // provided as the **template parameter**. ...
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... to make sure the **interface** is a dual **interface**, not a ... The third > **template** > > **parameter** for IDispatchImpl is the GUID of ... Sent: Monday, February 23, **1998** 12:33 ...
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... 3C++) Standard C++ Library Copyright **1998**, Rogue Wave ... Each container has an allocator **template parameter** specify- ing ... so it must have an appropriate **interface**. ...
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19. ECG IST-2000-26473 Effective Computational Geometry for Curves ... (PDF)
... under the "Information Society Technologies" Programme (**1998**–2002) ... ; We mentioned that the second **template parameter** of the ... ; 3 User **interface** The user ...
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... An abstract Builder class implementing the Task **interface** builds the page ... template and builder for a client request is based on a **template parameter** included in ...
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2. Tea, TeaServlet, Trove: **Interface** TemplateLoader.Template
Enclosing class: TemplateLoader public static **interface** TemplateLoader.Template ... If any **template parameter** names is unknown, the array entry is null. ...
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... only using the derived class as a **template parameter** was shown, you can put whatever template parameters are needed for customizing the **interface** implementation ...
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5. Carlo Wood - Re: what's next
... -benjamin About the allocator **template parameter**, that is my original design. I just thought you'd like the C **interface** more easily heheh. ...
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... . };. This works because **interface** has access to impl and can use it as a **template parameter** and because state1<> has access to its **template parameter**. ...
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... The typedef user_allocator publishes the value of the UserAllocator **template parameter**. ... by the allocators is accessible through the Singleton Pool **interface**. ...
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... the Complete Stack Implementation We can define the stack **template parameter** to be ... that is given as the type parameter to the Stack **interface** must implement a ...
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... to operate the way it does because of the **Interface** Principle ... error C2784: 'class std::reverse_iterator<`**template-parameter-1**', `**template-parameter-2**', `**template** ...
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... dBforums Archive for: comp.lang.c++ Default type-value for **template parameter** type Click here to see this thread with ... This is an object cache **interface** used to ...
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... earlier, template parameters are either entered by hand or by using Dreamweaver's editable attribute user **interface**. If the **template parameter** is entered ...
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... Wouldn't it allow some > decoupling of **template parameter** processing (the "class > metaimplementation") from the class **interface**, similar to the > pimpl idiom? ...
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... In this **interface**, the class allocator_interface provides all types and typed ... as raw bytes using the class provide by the Allocator **template parameter**. ...
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... Each container has an allocator **template parameter** specifying the type of allocator to be ... allocator, but if you do so it must provide an appropriate **interface**. ...
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NAME. IPC::XPA - **Interface** to the XPA messaging system. SYNOPSIS. ... Retrieve data from the servers specified by the **$template parameter**. ...
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... of the zip() **interface**, it is possible to omit the trailing parameter in the function call and explicitly indicate the type via a **template parameter**, as in: A ...
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... The **interface** template types the raw storage based on the **template parameter**. Only the implementation object is passed into a container. ...
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19. Programming with Interfaces in Java
... Notice that C++ templates are a form of _implicit_ **interface**. When you define a class template in C++ and then use the **template parameter** in the body of the ...
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20. boost::python, returning new PyObject references
... (i for **interface** or something? ... About base_object.hpp: > You use python_type as the name of a **template parameter** > template<class python_type> > struct ...
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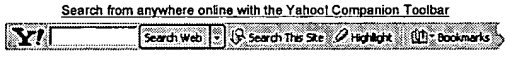

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From: Sievert, James A (James.Sievert_at_UNISYS.COM) Date: Wed Oct 02 2002 - 08:41:35 CDT. ... In DCOM, reserve interface inheritance for interface "expansion". ...
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2. http://www.faqchest.com/msdn/DCOM/dcom-02/dcom-0210/dcom-021000/
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... soficited on any of its interfaces, namely the management interface or the ... actions, notifications, name-bindings, parameters) and the inheritance of behaviors ...
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... any of its interfaces, namely the management interface or the ... Axel), Herpers (Martine), Holden (David) et Sievert (Stephan ... 91] Rumbaugh (James), Blaha (Michael ...
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... 1 4 M 5/18/02 Sievert, S. 1 ... presented Dimondale Elementary School Principal James Cooper (center ... the science of fire, urban-wildland interface issues, politics ...
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6. Contents
... dimensionless, item, litre, newton, sievert, ... render them in HTML in a graphical user interface. ... Daniel Lucio, Pedro Mendes, Eric Mjolsness, James Schaff, Bruce ...
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... This inheritance hierarchy is depicted in Figure 1. SBase Compartment Unit Model Reaction Specie KineticLaw Parameter Rule SpecieConcentrationRule ...
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... Open arrows indicate inheritance, pointing from inheritors to their parents (Eriksson ... liter mole siemens weber dimensionless item litre newton sievert Table 4 ...
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... David A. Evans, Ph.D. Columbia University, James J. Cimino ... In the future, the UMLS may serve as an interface between medical ... O'Keefe KM, Sievert M, Mitchell JA. ...
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... to design complexities capturing features such as complexity of inheritance hierarchies [17,24], coupling and cohesion [2,17], and interface complexity [5,15]. ...
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... was just running into the unique personality of Beta 1. James Sievert also helped ... like this allows code from other languages to find the interface methods and ...
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... Open arrows indicate inheritance, pointing from inheritors to ... component, then the user interface should display ... dimensionless item litre newton sievert Table 2 ...
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... Both, B. Biermann, R. Lerch, Y. Manoli, K. Sievert ... Software Partitioning and Minimizing Memory Interface Traffic. ... Michael J. Alexander, James P. Cohoon, Joseph L ...
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www.sbml.org/specifications/sbml-level-1/version-2/sbml-level-1-v2.ps view as html | more results from this site

16. !GRT Book/PM 6 w/pix (PDF)
... It is the study of this interface in plant systems that forms the theme of the Graduate Research Training program at ASU. ... James Allen and Neal Woodbury. ...
photoscience.la.asu.edu/photosyn/GRT-booklt.pdf view as html

17. 4-BIBLIOGRAPHY
... Gordon DF, Lewis SR, Haugen BR, James RA, et al ... Hennessey JV, Jackson IMD: The interface between thyroid hormones ... Surks MI, Sievert R: Drugs and thyroid function ...
www.thyroidmanager.org/Chapter4/4-biblio.htm cached

18. Science Fiction, Fantasy & Horror - Vintage 1940's - 1990's Mass ... (MICROSOFT WORD)
... ADLARD, MARK - Interface; **** Multiface; **** Volteface;. ... BLUMGARTEN, JAMES - The Astronaut;. ... BROOKES, OWEN - The Gatherer; **** Inheritance; **** The Window of ...
www.dougcomicworld.com/INVENTORY-ScienceFictionHorrorPaperbacks.doc view as html

19. Faculty of Medicine (RTF)
... P., Shedden*, B. and Rodgers*, R., 'Clinical Information System User Interface Design', Informatics ... Meeting, in D. McIntyre, D. Cameron & D. James (ed), Annual ...
www.monash.edu.au/resgrant/publications/rscpa/1996/med/med96.rtf view as html

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1. Re: ["Sievert, James A" <James.Sievert@UNISYS.com>] XML Schema ...
   Re: ["**Sievert, James A**" <**James.Sievert@UNISYS**.com>] XML Schema question for you... ...
   lists.w3.org/Archives/Public/www-xml-schema-comments/2000JulSep/0040.html cached | more results from this site

2. Neohapsis Archives - Microsoft DCOM Discuss - Re: Hi Keith! DCOM ...
   ... > Sam Gentile > System Architect > OTG > > > --Original Message----- From: **Sievert, James A** [mailto:**James.Sievert UNISYS**.COM] > Sent: Thursday, March 08 ...
   archives.neohapsis.com/archives/microsoft/various/dcom/2001-q1/1203.html cached | more results from this site

3. [XmlRpc-Java] I'd like to see a slight change to XmlRpcServer...
   [XmlRpc-Java] I'd like to see a slight change to XmlRpcServer... **Sievert, James A James.Sievert@UNISYS**.com Tue, 29 Aug 2000 14:51:53 -0500: ...
   xmlrpc.helma.org/archives/xmlrpc/2000-August/000171.html cached | more results from this site

4. XMLP Candidate Recommendation Issues List
   ... Description: **James Sievert** of **Unisys** has identified the following issue: ---- I understand this up to the point at which I see an example like the following ...
   www.w3.org/2000/xp/Group/xmlp-cr-issues.html cached

5. Matthew Reynolds' .NET 247 : System.Runtime.Remoting. ...
   ... From: "**Sievert, James** A" **James.Sievert@UNISYS**.COM Reply To: dotnet discussion DOTNET@DISCUSS.DEVELOP.COM To: DOTNET@DISCUSS.DEVELOP.COM Subject: Re ...
   www.dotnet247.com/247reference/System/Runtime/Remoting/ObjectHandle.aspx?v=2 cached | more results from this site

6. COTS Digital Signatures Workgroup Education Day Agenda
   ... of General Services, mmaupin@dgs.state.va.us, (804) 786-3261, (804) 371-8305. **Mavredes, James**, Dept. ... **Sievert**, Bob, Dept. ... Fehn, Sally, **Unisys**, Horkey, Michael, **Unisys**, ...
   www.cots.state.va.us/dsi/edudayat.htm cached

7. Fredonia Alumni E-Mail Page (By Class Year)
   ... musingman@aol.com) or (David.Ullem@**unisys**.com) Linda ... Satone@worldnet.att.net) Barbara **Sievert** - (BJSievert@juno ... state.ny.us) Jim Wasson - **james.wasson**@redstone ...
   www.fredonia.edu/alumni/1970.htm cached

8. Stillwater Area High School Class of 1997 Directory
   ... Neils, Justin, justin.neils@**unisys**.com, AIM: Wailer0. ... Pruden, **James**, prud0010@tc.umn.edu, 612-[illegible]1049. ... **Sievert**-Whaley, Christine, christinesievert@yahoo.com, 715-247 ...
   www.sahs1997.com/ cached
   ↳ More sites about: Minnesota > Stillwater > Stillwater Area High School

9. Representative Offices
   ... Telex: fax(es): 238083; Head: Mr.CHARLES E.**SIEVERT**; Activity: ENGINEERING ... Telex: fax(es): Head: Mr.PATRICK **JAMES** LOOPAN; Activity: CONSULTING ... Name: **UNISYS** CORP. ...
   hannover.park.org/Thailand/MoreAboutAsia/vninfo/repoffs/usa.html cached

10. socap update 7/16/99 (PDF)
    Page 1. T he dawn of a new century is almost here. Are you prepared for what the future will bring? Meeting the challenges of the ...
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11. Joanna S Fowler (MICROSOFT POWERPOINT)
    ... prize of $5000 is supplied by the **UNISYS** Corporation ... In April of 1953, **James** Watson, Francis Crick and Maurice ... or gray) to a dose equivalent in rem (or **sievert**). ...
    www.womenandhitech.org/presentations/May2003MothersofInvention.ppt view as html

12. THE NATIONAL ELECTRONIC COMMERCE COORDINATING COUNCIL CONFERENCE (RTF)
    ... 517-323-0300. 517-335-0046. mullaneyk@state.mi.us. **James** S. Hurst. Accounting & Finance Director. Dept. ... 775-834-5800. 775-684-5846. **James** R. Wells. Chief Accountant. ...
    www.naspo.org/ECCC/neccc99/attendance.rtf view as html

13. Teleservices Agency Who's Who Roundup
    ... L&S Teleservices John **Sievert** P:800-894-7832; F ... Multilingual, Outbound Trace Miller Group **James** Quinn P ... **Unisys** Worldwide Telesales Services Alison Dickson P:800 ...
    www.tmcnet.com/articles/ccsmag/0699/0699whoswho1.htm cached

14. <html> <head> </head><body><pre><html> <head> </ ...
    ... Jagiello Jalisco Jamaica Jamal **James** Jameson Jamsheed ... Siegler Siemans Siemens Sierra **Sievert** Sig Sigrid ... Ubersicht Udairi Ultraphot Unal **Unisys** United Univac ...
    www.cs.nps.navy.mil/people/faculty/rowe/coursematerials/validwords.txt cached

15. WEB Torch WS 03 (PDF)
    ... 16-22. Singer- songwriter **James** Hersch brought his unique musical outreach program to the campus and city of Crookston on Wed., Feb. ... **James** Robert Doster, Jr. ...
    www.crk.umn.edu/people/alumni/torch/Torch-W-S-2003.pdf view as html

16. <html> <head> </head><body><pre><html> <head> </ ...
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1. **Interface inheritance**(or sub-typing)
... Object-Oriented Previous: (implementation) **Inheritance Interface inheritance**(or sub-typing). 1. Implementation **Inheritance** is not ...
ochimizu-www.jaist.ac.jp/TEX/history/node8.html cached | more results from this site

2. Using **Interface Inheritance** to Address Problems in System ...
Using **Interface Inheritance** to Address Problems in System Software Evolution (1994) (Make Corrections) (9 citations) Graham Hamilton Sanjay Radia Sun ...
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3. [DUG]: **Interface Inheritance**
... [DUG]: **Interface Inheritance**. From: Todd Martin; ... Hi Does anyone know if there's a way to test for **interface inheritance**? For example IFirstDescendant ...
www.mail-archive.com/delphi@delphi.org.nz/msg18352.html cached | more results from this site

4. www-ws-desc@w3.org from April 2003: "recursive" **interface** ...
"recursive" **interface inheritance**. From: Liu ... **interface inheritance**"; Maybe reply: Savas Parastatidis: "RE: "recursive" **interface inheritance**"; ...
lists.w3.org/Archives/Public/www-ws-desc/2003Apr/0155.html cached | more results from this site

5. **Interface inheritance**
... **Interface inheritance**. The CORBA standard ... The question arises, how things are handled when **interface inheritance** is used. MICO offers two ...
emily.soils.wisc.edu/mico_docs/doc/node50.html cached | more results from this site

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Using **Interface Inheritance** to Address Problems in System Software Evolution. ...
Using **Interface Inheritance** to Address Problems in System Software Evolution. ...
research.sun.com/research/techrep/1993/abstract-21.html cached | more results from this site

7. Bill de hÓra: **interface inheritance**
... December 18, 2002. **interface inheritance**. ... **Interface inheritance** is actually useful in terms of being able to say what you want to say. Taking Mark's examples of: ...
www.dehora.net/journal/archives/000116.html cached | more results from this site

8. **Interface inheritance**
next up previous Next: Modules Up: C++ mapping Previous: Unions **Interface inheritance**. ... Figure 5.2: C++ class hierarchy for **interface inheritance**. ...
vision.eng.shu.ac.uk/corba/mico/doc/doc/node63.html cached

9. IUnknown and **Interface Inheritance**
Because no implementations are associated with interfaces, **interface inheritance** does not mean code **inheritance**. ... IUnknown and **Interface Inheritance**. ...

msdn.microsoft.com/library/en-us/com/htm/com_9v6t.asp cached | more results from this site

10. Grant Killian
... Me: Implementation **Inheritance**, or **Interface Inheritance**, that is the Question. ... This is also known as "**Interface Inheritance**." Take the following code: ...
www.dotnetjunkies.com/WebLog/grant.killian/posts/1276.aspx cached

11. **Interface Inheritance**
Interface Inheritance. You can choose not to derive CheckingAccountImpl() from AccountImpl(). ... **Interface inheritance** facilitates encapsulation. ...
www.iona.com/support/docs/e2a/asp/5.0/mainframe/pguide_cpp/html/ServerBasics18.html cached | more results from this site

12. **Interface Inheritance**
Interface Inheritance #3: Versioning. ...
www.twoguru.com/playground/cs_tutorial/oop/interface_inheritance/versioning.htm cached | more results from this site

13. ORBit-2.0-cpp problem with mulitple **interface inheritance**
[Date Prev][Date Next] [Thread Prev][Thread Next] [Thread Index] [Date Index] [Author Index] ORBit-2.0-cpp problem with mulitple **interface inheritance**. ...
mail.gnome.org/archives/orbitcpp-list/2003-March/msg00002.html cached | more results from this site

14. [fpc-devel]**interface inheritance** (dom2) bug???
[fpc-devel]**interface inheritance** (dom2) bug??? Peter Vreman ... 29 GMT: Previous message: [fpc-devel]**interface inheritance** (dom2) bug??? ...
www.nl.freepascal.org/lists/fpc-devel/2002-August/002422.html cached | more results from this site

15. [Zope3-dev] Re: **Interface Inheritance**
[Zope3-dev] Re: **Interface Inheritance**. guttner@fit.vutbr.cz ... 3 / Python 2.3 - OK :-); Next message: [Zope3-dev] Re: **Interface Inheritance**; ...
mail.zope.org/pipermail/zope3-dev/2003-March/005993.html cached | more results from this site

16. **Interface Inheritance** scon025.htm
Interface Inheritance. •, Interfaces can inherit from other interfaces. •, Interfaces can inherit across packages. •, Interfaces ...
www.kabira.com/education/training/IDLos/scon025.htm cached

17. A.4.6 Mapping for **interface inheritance**
A.4 The mapping of IDL to Dylan. A.4.6 Mapping for **interface inheritance**. A.4.6.1 - Background A.4.6.2 - Specification A.4.6.3 - Rationale A.4.6.4 - Examples. ...
www.functionalobjects.com/products/doc/corba/corb_143.htm cached | more results from this site

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[Main]. **Interface Inheritance**. **Interface inheritance** is the process of defining a new **interface** with all the methods found in one or more old interfaces. ...
phoenix.liunet.edu/~mdevi/corba/InterfaceInherit.htm cached

19. Neohapsis Archives - Microsoft DCOM Discuss - Re: **Interface** ...
LOCATION: Neohapsis / Archives / Microsoft DCOM Discuss / Message Index / Re: **Interface inheritance** and IErrorInfo problem. From: Sievert ...
archives.neohapsis.com/archives/microsoft/various/dcom/2002-q4/0003.html cached

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20. **Interface inheritance** operator
Interface inheritance operator. ... The union of implementation **inheritance** and **interface inheritance** is the normal UML **inheritance**. ...
www.isis.vanderbilt.edu/projects/GME2000/Doc/UsersManual/Interfaceinheritanceoperator.htm cached | more results from this site

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1. xsl-editors@w3.org from October to December 2002: Re: interfaces ...
... **Template** calls can also declare the use of an **interface**, in which ... **Inheritance** between interfaces is forbidden by XSLT (I felt this would make the language ...
lists.w3.org/Archives/Public/xsl-editors/2002OctDec/0000.html cached

2. Programming with Interfaces in Java
... If a "**template**" puts _no_ restrictions on an object ... variables and parameters of an **interface** type ... of two mechanisms of C++ (templates and multiple **inheritance**). ...
csis.pace.edu/~bergin/papers/Interface.html cached | more results from this site

3. 4.3 Generic Programming Using Templates
... Dagger Up: 4 **Inheritance** and Templates Previous: 4.2 **Inheritance** for Messages ... The CHARM++ **interface** file should contain the **template** definitions as ...
charm.cs.uiuc.edu/manuals/html/charm++/node33.html cached | more results from this site

4. 5. Templates
... Constructing the **interface** between the templated C++ class ... the approach used in the **inheritance** example ... class pointers also have a **template parameter** that must ...
www.esmf.ucar.edu/esmf_docs/impl_rep/node6.html cached

5. Citations: Subtypes vs where clauses: Constraining parametric ...
... the idea of a **template** from the ... representations (types) support single **inheritance**, and implementations ... language that cleanly separates **interface** (type) from 3 ...
citeseer.nj.nec.com/context/283712/32818 cached | more results from this site

6. A Chat on Abstract Classes and Interfaces in Java (MICROSOFT WORD)
... If a "**template**" puts no restrictions on an object ... have variables and parameters of an **interface** type ... two mechanisms of C++ (templates and multiple **inheritance**). ...
www.tcnj.edu/~mmmartin/JavaCPP.doc view as html

7. IUE Users Manual - 1.1 Goals
... had to provide a basic **interface** to support ... handle a wide range of **template parameter** types ... conversion problems arising from multiple **inheritance** and carefully ...
www.aai.com/AAI/IUE/doc/UM/UM-1.1.html cached

8. Interfaces
... of parameters to a set of **parameter** names would ... Instead of allowing templates and **template** calls to ... reuse without adding complexity to **interface** declarations. ...

www.agslin.net/xslp/interface.html cached | more results from this site

9. HOWTO: Reuse **interface** implementation in source in ATL projects - ...
... not derive from IBaseImpl<>, but instead it is passed in as a **template parameter**. ... for your design, but you do have a deep **interface inheritance** hierarchy, it ...
www.mvps.org/vcfaq/com/8.htm cached

10. Policy-Based Class Design in C++ at InformIT.com
... suggests that a combination of templates and multiple **inheritance** could **engender** ... C++ with MS VC++ Compiler with **template template parameter** doesnt work. tjkwon. ...
www.informit.com/isapi/product_id~%7B8A3DCB14-9FEB-498B-89B1-2CDBC13F7058%7D/element_id~%7B7E08113E-F288-455F-9DBE-92BFC77B0E44%7D/st~%7B3FAD3499-20A6-4782-9A96-05825F8E6E5B%7D/content/articlex.asp cached | more results from this site

11. Template Matching Tutorial (MICROSOFT WORD)
... we do NOT get a list of interfaces due to type □**inheritance**□. ... Public **interface** A ... What will the following do: Simple simple = new Simple(); **Template** temp = new ...
sky.fit.qut.edu.au/~milliner/OO/TUTES2003/tut6.doc view as html | more results from this site

12. Boost Mailing List Archive -- [boost] RFC: **Inheritance** ...
... c. Your comment here 2. Chained **inheritance**: every policy ... and is inherited from one **template parameter**, which in ... supposed to define a public **interface** and that ...
lists.boost.org/MailArchives/boost/msg28990.php cached | more results from this site

13. Application Development Guide –Core Components
... Context **Inheritance**; The Initial Context; Private ... Type Definition; Filtering; User **Interface** Considerations; Writing ... Enabling EMS; Compiling; Event Consumer **Template**. ...
www.univie.ac.at/dcedoc/A3U2J/A3U2JM02.HTM cached

14. ODETTE
... parameterisation) and of class specialisation (**inheritance**). ... in the container (**template parameter** Type) needs to ... The **interface** elements enhance the **interface** ...
www.ecsi-association.org/ecsi/projects/odette/gcl.html cached

15. Objects by Design: Transforming XMI to HTML
... as such, may also have another **interface** as a ... requirement when modeling for languages which support multiple **inheritance**. ... The **template** may be found in the full ...
www.objectsbydesign.com/projects/xmi_to_html_2.html cached | more results from this site

16. ModelMaker Home Page
... and drop to change class/ **interface inheritance** add **interface** ... be registered on the Code **Template** palette which ... selected members to another class or **interface**; ...
www.modelmaker.demon.nl/ce_features.htm cached

17. Final Exam Composition (1) Composition (2) (PDF)
... Spring 2000) 20 **Inheritance** • **Inheritance**: public, protected ... defines an

interface CS2704 (Spring ... more type parameters **Template parameter** Parameterized class ...
courses.cs.vt.edu/~cs2704/spring00/phanouri/Slides/FinalReview_6p.pdf view as html | more results from this site

18. In-depth: The Parser
... This is essentially an **interface** contract ... is known as the "Curiously Recurring **Template** Pattern" in ... This **inheritance** strategy gives us the power of polymorphism ...
www.boost.org/libs/spirit/doc/indepth_the_parser.html cached | more results from this site

19. Document Title
... One benefit of this **inheritance** based approach is that ... handled - it returns the first **interface** that matches ... your object casted to the first **template parameter**. ...
homepage.interaccess.com/~hollp/docs/ImplementQI.htm cached

20. Exploring Template Template Parameters
... Due to the public **inheritance**, the user can work with the container's typical **interface** to change ... only extension is that **template template** parameters inside ...
www.progdoc.de/papers/ttp/psi-ttp/psi-ttp.html cached

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